

Q2 locks, but could be other types of clamps. Although the apparatus has been described as separate pieces (e.g. the anchor, the alignment guide, and the resection guide), it could be two pieces or a single piece. In general, the methods and tools of the invention could be used with other joints other than the knee. It is believed that the methods and tools could be used in arthroplasty of the hip, shoulder, elbow, etc.

IN THE CLAIMS

CLEAN COPY OF AMENDED CLAIMS:

Q2 1. (Amended) An apparatus for use during arthroplasty for guiding the resection of a bone having a long axis, comprising:

- Q3
- (a) anchoring means for anchoring the apparatus to the bone, said anchoring means oriented transversely to the long axis of the bone;
 - (b) a drill guide coupled to said anchoring means; and
 - (c) alignment means coupled to said anchoring means and said drill guide for locating said drill guide relative to the anchoring means, said alignment means providing three degrees of freedom.

Q4 17. (Amended) A method of resecting a bone during arthroplasty, said bone having a long axis, said method comprising the steps of:

- (a) anchoring an anchor to the bone in an orientation transverse to the long axis of the bone;
- (b) attaching a drill guide to the anchor;
- (c) aligning the drill guide relative to the bone in three degrees of freedom;

- 94
- (d) locking the drill guide in position; and
 - (e) drilling the bone using the drill guide.
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31. (Amended) An apparatus for use during arthroplasty for guiding the resection of a bone having a long axis, comprising:

- 95
- (a) anchoring means for anchoring the apparatus to the bone, said anchoring means oriented transversely to the long axis of the bone;
 - (b) a drill guide coupled to said anchoring means;
 - (c) alignment means for locating the drill guide relative to the anchoring means, said alignment means providing three degrees of freedom; and
 - (d) a computer navigation system optically coupled to the drill guide.
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Insert new claims 47-49, as follows:

47. (New) The apparatus of claim 1 wherein said anchoring means is oriented substantially parallel to the sagittal plane.

94 48. (New) The method of claim 17 wherein the orientation of the anchor is substantially parallel to the sagittal plane.

49. (New) The apparatus of claim 31 wherein said anchoring means is oriented substantially parallel to the sagittal plane.

MARKED-UP COPY OF AMENDED SPECIFICATION PARAGRAPHS:

Please amend the paragraph beginning at page 19, line 17 and ending at page 19, line 20 as follows:

Referring now to Figure 20 ~~21~~, a pair of diodes 32, 34 are installed in the epicondylar region with screws (not shown), in the holes which were drilled in the previous step, using a screwdriver 36.

Please amend the paragraph beginning at page 20, line 4 and ending at page 20, line 21 as follows:

There have been described and illustrated herein methods and tools for resection of the distal femur. While particular embodiments of the invention have been described, it is not intended that the invention be limited thereto, as it is intended that the invention be as broad in scope as the art will allow and that the specification be read likewise. For example, the first two positioning steps may be reversed in sequence, provided that the navigation software is suitably ~~suitable~~ modified. Moreover, the clamps on the alignment guides need not be cam locks, but could be other types of clamps. Although the apparatus has been described as separate pieces (e.g. the anchor, the alignment guide, and the resection guide), it could be two pieces or a single piece. In general, the methods and tools of the invention could be used with other joints other than the knee. It is believed that the methods and tools could be used in arthroplasty of the hip, shoulder, elbow, etc.

MARKED-UP COPY OF AMENDED CLAIMS:

1. (Amended) An apparatus for use during arthroplasty for guiding the resection of a bone having a long axis ~~during arthroplasty~~, comprising:

- (a) anchoring means for anchoring the apparatus to the bone, said anchoring means oriented transversely to the long axis of the bone;
- (b) a drill guide coupled to said anchoring means; and
- (c) alignment means coupled to said anchoring means and said drill guide for locating said drill guide relative to the anchoring means, said alignment means providing three degrees of freedom.

17. (Amended) A method of resecting a bone during arthroplasty, said bone having a long axis, said method comprising the steps of:

- (a) anchoring an anchor to the bone in an orientation transverse to the long axis of the bone;
- (a ~~b~~) attaching ~~anchoring~~ a drill guide to the anchor ~~bone~~;
- (~~b~~ c) aligning the drill guide relative to the bone in three degrees of freedom;
- (e d) locking the drill guide in position; and
- (~~d~~ e) drilling the bone using the drill guide.

31. (Amended) An apparatus for use during arthroplasty for guiding the resection of a bone having a long axis ~~during arthroplasty~~, comprising:

- (a) anchoring means for anchoring the apparatus to the bone, said anchoring means oriented transversely to the long axis of the bone;

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- (b) a drill guide coupled to said anchoring means;
- (c) alignment means for locating the drill guide relative to the anchoring means, said alignment means providing three degrees of freedom; and
- (d) a computer navigation system optically coupled to the drill guide.